Preface

Thank you for purchasing this camera, this camera will help you to fulfill all your digital picture processing needs.

The camera is equipped with three modes (Capture, Playback, and Audio / Video) for your exploration. In combination with all the above modes function, not only will this camera serve as a digital camera, but it can also be used in recording short movie and audio recording.

This versatile, neat design camera offers 6.36 mega pixels high quality image along with precise 38.4x zoom (4.8x optical plus 8x digital). The built-in 32MB internal memory can store your images, video clip and audio files. Its auto focus lens supports a macro focus mode from 1cm to 30cm. Generally, it can take the pictures from 30cm to infinite range. Through the USB cable connection, pictures can be easily transmitted from the camera to the PC. It also provides a TV-out function to perform the operation through TV.

To make the best out of this camera, we strongly suggest that you read through this manual prior to operating this camera.

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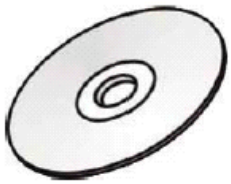
Setup

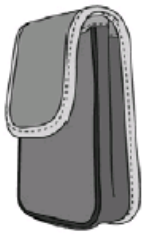
Setting up this digital camera is quick and simple. Following these steps and you'll be on your way to infinite boundaries.

Unpacking Camera

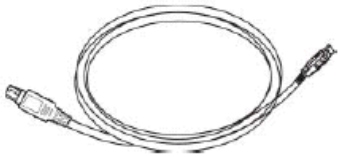
1. Clearing all items from the box. (It is highly recommended that the box and wrappings are kept for future usage)
2. Double check for the following items:



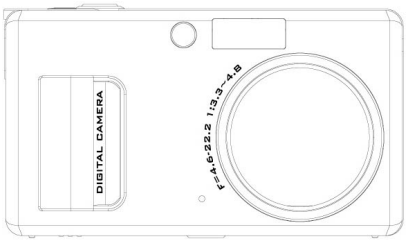
CD-ROM



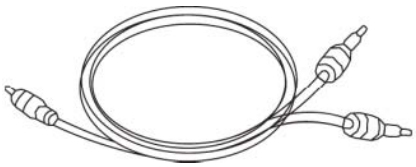
Pouch



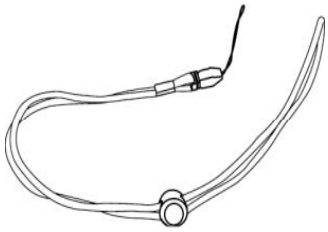
Mini USB cable



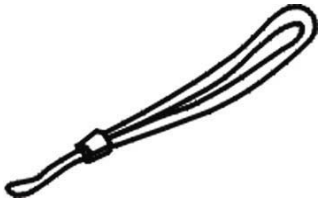
Camera



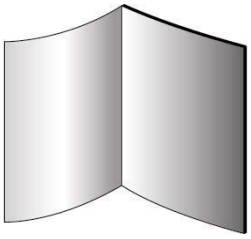
Video Cable



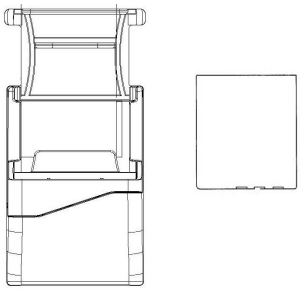
Strap



Hand

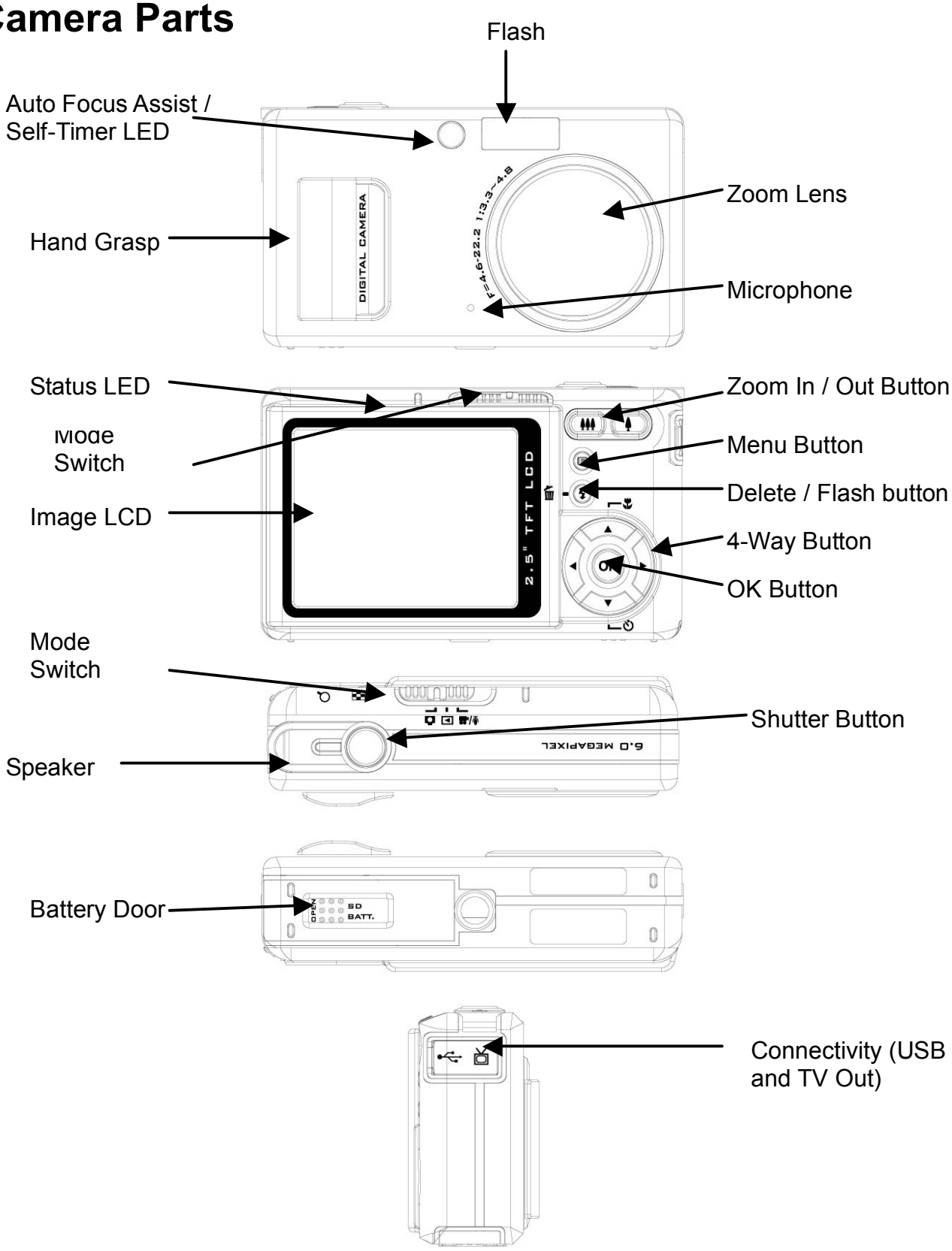


Quick Guide



Charger& Battery

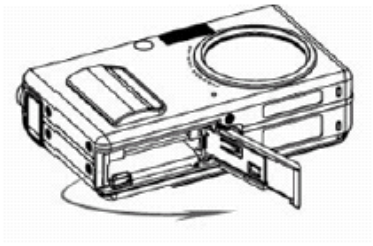
Camera Parts

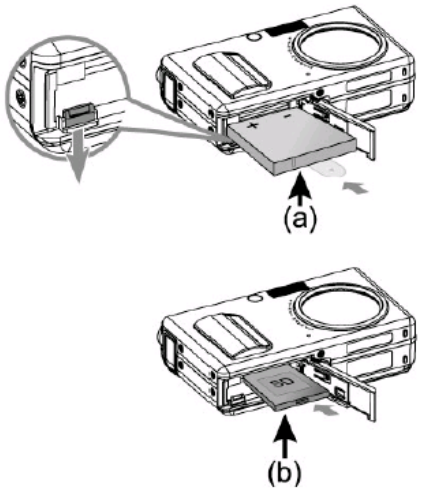


Loading Battery and SD Card

This camera uses NP-40 battery. The battery and SD card share the same compartment and door.

1. Sliding the battery / SD card door in the direction of the arrow then lifting it to open.
2. Loading the included battery into the battery compartment. (a)
3. Inserting the SD card into the slot. (b)
4. Closing the battery/SD card door.





CAUTION!

1. Using only the specified battery for this camera. Other power sources may cause fire.
2. Battery should be inserted in the battery compartment with the sides facing correctly.

NOTE:

1. Upon loading new battery, users will need to reset their Basic Settings.
2. Do not open the battery / SD card door or remove the battery when the camera is in its ON status. Only remove the battery and SD card when the camera is not in use, or in its OFF status.
3. If you do not plan on using the camera for a long period of time, please remove the battery and SD card.
4. In order for Li-Ion battery to get optimum performance it is highly recommended to charge the battery at least 8 hours on first use or after storage of more than 3 months.

Basic Settings

Upon turning the camera on, a “ welcome image” will appear on the LCD display. Please proceed with the following settings:

NOTE: Users have the option of changing the camera’s “ welcome image,” by selecting background setting under the menu section of Playback mode.

Language Preference Setting

There are a total of fourteen languages to choose from to interact with this camera. Please refer to setup function. (Page 26)

Date and Time Setting

Please refer to the Date and Time setting under setup function. (Page 23)

Formatting Internal Memory / SD Card

To take more pictures effectively, format the content of the Internal Memory/SD card. To format SD card, please insert your compatible SD card into SD slot. Then proceed with the following steps:

1. Enter the Menu Setup Function.
2. Selecting "Format" setting option of the menu by ▲▼ buttons.
3. The user will then be asked "Format SD Card?" on the LCD Display.
4. Pressing the Shutter button to confirm and proceed with formatting.

As a result, if there is no SD / MMC card in camera, the LCD display will show the following message for confirmation: "Format internal Memory?" then, press Shutter button to perform formatting internal memory.

Basic Operating Procedure

This Quick Start provides simple and basic directions to get you started with your camera. From this section, you will learn how to turn the camera ON and OFF, shoot pictures, use the Auto Focus function, Zooming In and Out, and Playback your pictures.

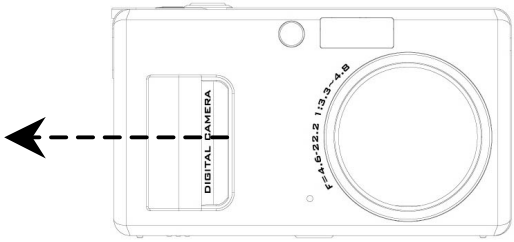
Turning Camera ON/OFF

To turn the power on

Slide the power switch to open the lens cover.

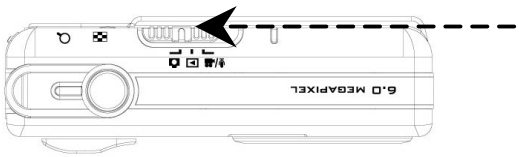
To turn the power off

Slide the power switch to close the lens door.

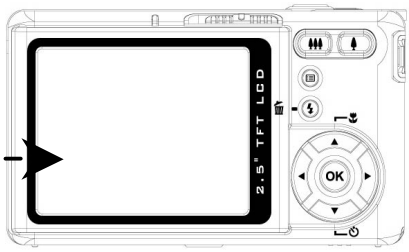


The backside LED indicator will remain green when the camera is power on

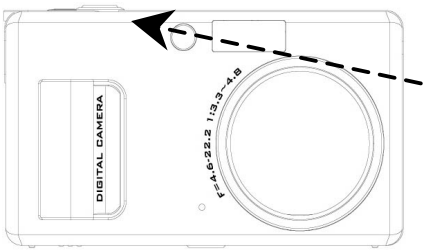
Basic Shooting



1. Slide the Mode Switch to Capture Mode



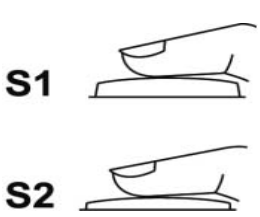
2. Looking into the LCD and try to align your subject into the focus brackets.



3. When your subject has been aligned for shooting, press the Shutter button down halfway for focusing, after the subject has been focused then keep pressing the Shutter button all the way down for taking picture.

Auto-focus Function

When the Shutter button is pressed halfway down (S1), the Auto-Focus function will be activated and the subject will be focused automatically. Following these steps to activate this function:



1. Before pressing down the Shutter button, the focus brackets are white, once the Shutter button has been pressed halfway down (S1), and the subject is able to focus, the focus brackets will turn green, otherwise the focus brackets will turn red.
2. When the subject has been focused successfully, pressing the Shutter button all the way down (S2) to take picture.

Zooming In/Out

This camera has 4.8x optical zoom and 8x digital zoom function, there is a zoom bar on the right side of LCD display to indicate the zoom status. While pressing the Zoom button, there is a white bar in the middle of zoom bar to separate optical zoom and digital zoom. Pressing Zoom in and Zoom out button to move the lens between wide angle (1x) and telephoto (4.8x) positions for optical zoom; it will activate the digital zoom by still pressing the button after the lens had moved to telephoto position. Once the subject has been aligned in LCD, the user can press the Zoom button to select preferred image size.

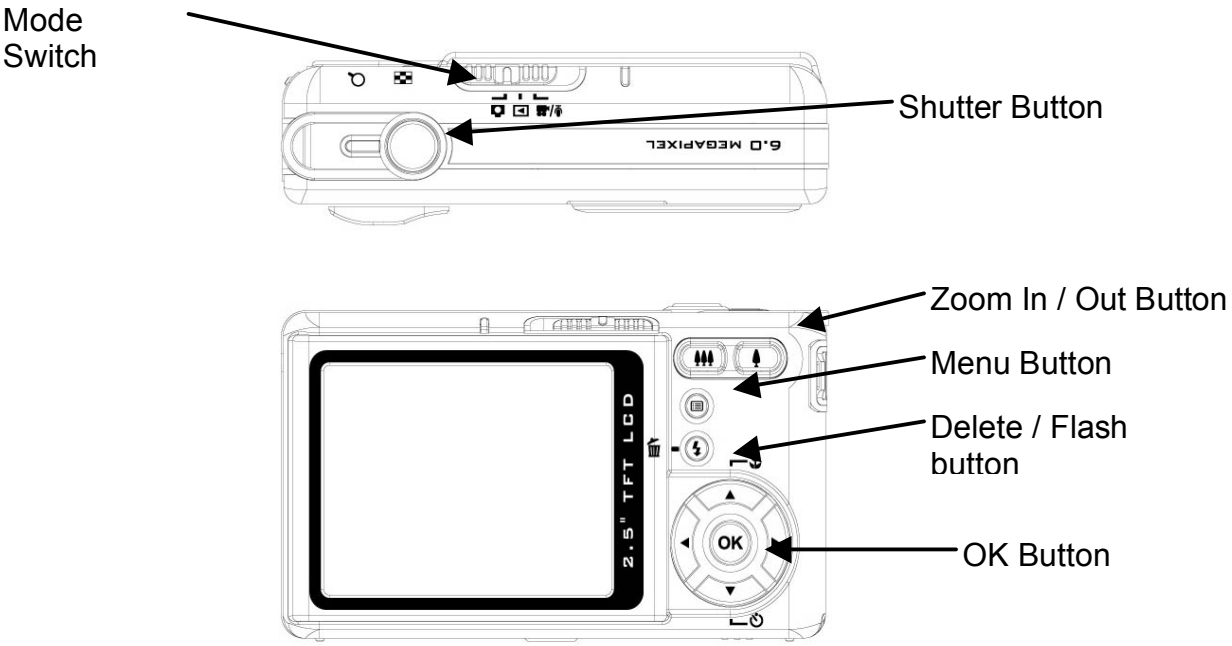
Viewing Pictures

Turning Mode Switch to Playback Mode to review the recently taken images, video clips or audio files, and use the ◄► buttons to scroll through them. For an in-depth description of Playback Mode , please refer to page 18.

Quick Delete Picture

In Playback Mode, simply press down on the Delete/Flash button to quick delete an image. A "Delete this file?" message will appear on the LCD, and then pressing down on the OK button will delete the file.

Basic Function Buttons



1. **Shutter Button**: Taking picture, video and audio by pressing Shutter button.
2. **Mode Switch**: It allows users to change different mode.
3. **Zoom In/Out Button**: To zoom in and out lens between wide and telephoto position to set preferred image.

Note: Digital zoom is limited for 10.0M resolution.

Resolution	Digital Zoom
10.0M (3648 x 2736)	8x
6.0M (2816 x 2112)	8x
3.0M (2048 x 1536)	8x
2.0M (1600 x 1200)	8x
1.3M (1280 x 960)	8x
VGA (640 x 480)	8x

Under Capture Mode:

Zoom In: Pressing Zoom In button for magnifying image.

Zoom Out: Pressing Zoom Out button for narrow the image.

Under Playback Mode: (Magnify/Thumbnail).

Zoom In: Pressing Zoom In button for magnifying image.
Zoom Out: Pressing Zoom Out button for thumbnail images. (2x2/3x3).

4. **Delete/Flash Button:** This button sets flash as force off, auto red eye reduction, force on and slow sync under shooting modes. In Playback Mode, a delete confirmation message will appear on LCD.

   Force off: default setting of flash mode.
   Auto: auto detecting environment brightness to flash for exposure compensation.
   Force on: forcing flash discharge for every shot.
   Auto red eye reduction: to avoid red eye caused by auto flash while taking portrait picture.
   Slow sync: synchronizing flash with slow shutter speed.

5. **Menu Button:** This button could enter in each mode menu for settings adjustment.

6. **OK Button:** This button could confirm the selection.

7. **Up Button (Focus Mode Hot Key):** This button could let user select different focus mode according to subject focusing distance, there are 3 focus modes for users to set, normal, macro and infinity focus modes.

8. **Down Button (Self Timer Hot Key):** This button provides use different timer settings: 3 seconds and 10 seconds, 3 seconds is usually applied for users to take shot without tripod to support camera steady and prevent hand shaking by pressing Shutter button.

9. **Left & Right Button (EV Adjustment Hot Key):** Exposure compensation is used to alter the camera's standard exposure setting. You can darken or lighten the image.

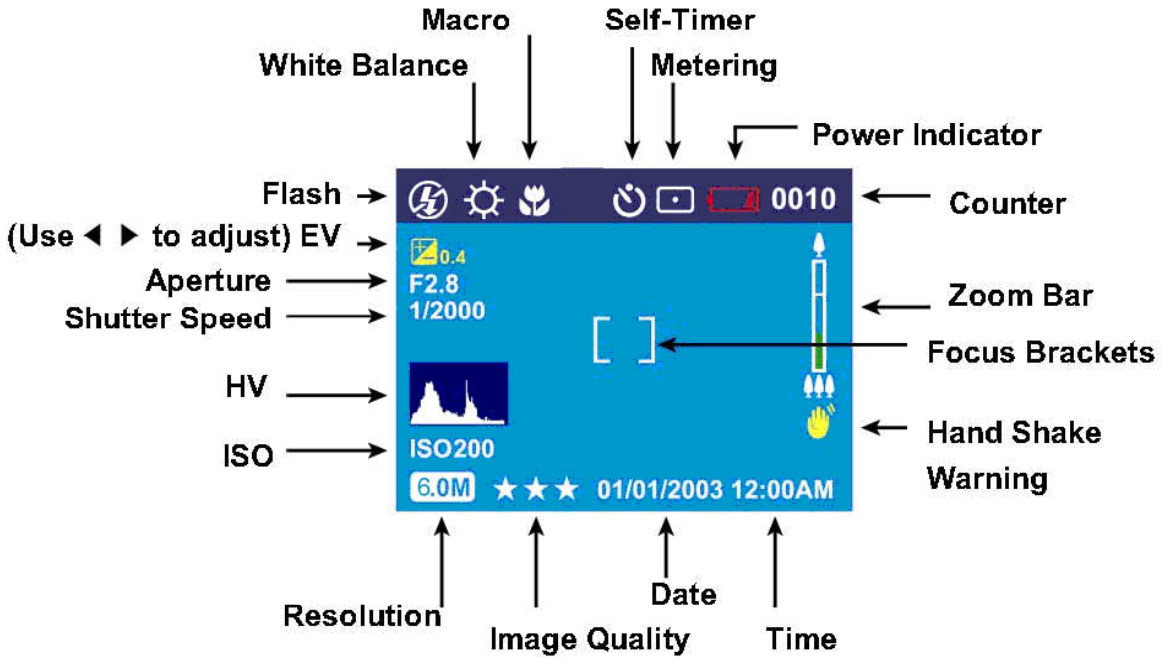
Main Modes and Setup Function Instructions

This section will describe the three modes and setup function included in this camera. An in-depth coverage of these modes will be further described

Items	Menu Setting Options	Page
Capture Mode		12
Playback Mode		18
Audio/Video Mode		21
Setup Function		23

Capture Mode

This mode provides variety scenic best shots and "Auto" for still image capturing.

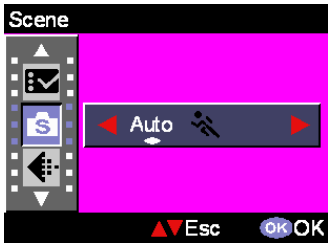


Slide the Mode Switch to the Capture Mode. Pressing the to access menu. Then use ▲▼button to select the setting option for change setting. Once the option has been selected, use ◄► button to scroll through them and confirm to setting changed.

Pressing again can exit menu at anytime.

Scene

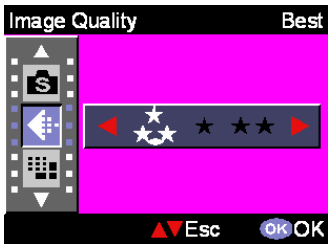
Users can select from the following scenes to suit the environment for still image shotting:



Auto - This is for directly "point and shoot", all capturing setting will set by system automatically.
Sport - This is for fast-moving subjects when you want to freeze the action.
Landscape - This is used for wide scenic views.
Night - Night view scenes.
Portrait - This mode blurs the background to focus on the portrait.
Self Portrait - It enables users to take a picture of user self while holding the self and take a shot of half top of portrait.
Night Portrait - This mode is for images taken during twilight or at night for portrait. The flash illuminates the subject while a slow sync speed capturing a natural exposure of the background.
Sunset - To enhance the red tone for taking sunset picture.
Beach - This is for taking beach view with enhanced blue tone.
Back Light - For taking the picture of back light object by changing metering mode.
Autumn - This is for autumn scenic of red maple views.
Natural - This is suitable for forest or grasslands views.
Sky - This is for sky views to enhance saturation and blue tone.
Party - It enables you to take pictures under a darker environment with different lighting.
Text - This mode will project the text by enhancement of the black and white contrast.

Image Quality

The widely-used JPEG format is used for image-recording quality setting. Users can select from the following image quality:



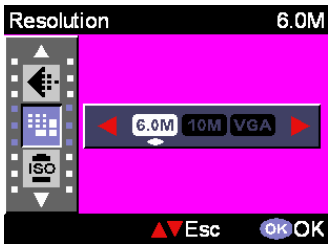
★★★ Best-Least image compression ratio (Default).

★★ Better-Least Less image compression ratio.

★ Basic-Economical image compression ratio.

Resolution

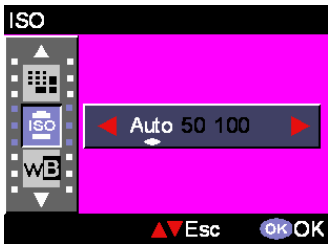
This setting option allows users to set the record resolution.



640 x 480 (VGA)
1280 x 960 (1.3M)
1600 x 1200 (2.0M)
2048 x 1536 (3.0M)
2816 x 2112 (6.0M) (Default)
3648 x 2736 (10.0M)

ISO

The ISO speed is the sensitivity to light. The higher the ISO speed number, the higher the sensitivity is to light.

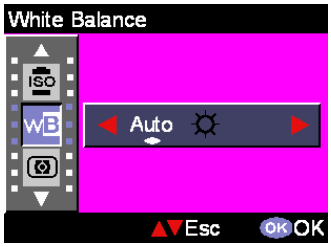


Auto (Default)
50
100
200
400

White Balance

Normally, the “Auto” WB setting will set the optimum white balance automatically. If natural colors cannot be obtained by auto WB, you can set the white balance manually to suit the respective light source. Users can select the following white balance settings:

Auto (Default)
Sun
Cloud
Tungsten
Fluorescent



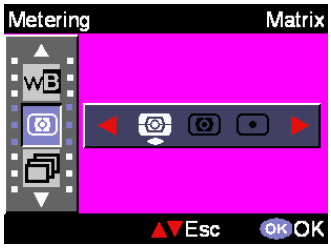
Metering

This setting option will calculate the best overall exposure value. The camera has three metering modes:

Matrix (Default)

Center-weighted

Spot



Continue Shot

This function can provide users to take 3 photos in one shot.

On

OFF (Default)

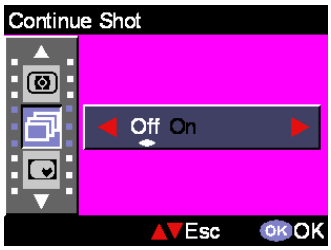
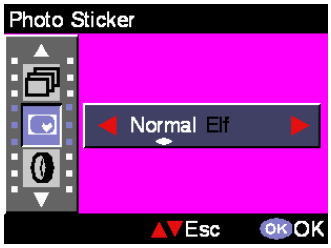


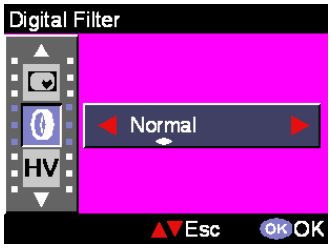
Photo Sticker

This setting option provides users variety foregroundimages for shooting fun increasing. It has Normal, Elf, Couple, Greeting, Winner,Belove and Party foregrounds for users selecting.



Digital Filter

This setting option could let users set image to have color filter effect by digital image processing instead of lens filter:
Normal (Degault) / Black&White / Sepia / Red / Pink / Purple / Blue / Green / Yellow / Solarize / Negative

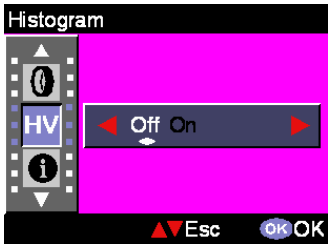


Tip: Solarize -This effect creates the impression that the image has been exposed to light.
Negative - Having the light and dark parts opposite to what they were in the original picture.

Histogram

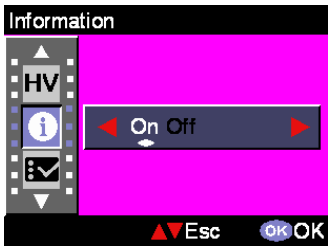
Histogram Value shows the brightness and contrast of the subject. It enables precise exposure control.

You can set histogram display manually.
On
Off (Default)



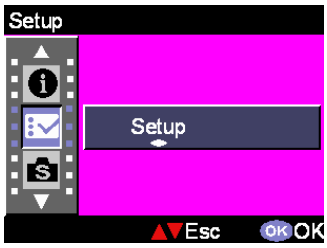
Information

This setting option supports the display capture information on the LCD while taking pictures.
On
Off (Default)



Setup

This option supports the display and use of the setup menu; for detailed information, see page 23.

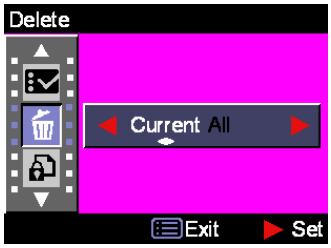


Playback Mode

One of the main advantages of a digital camera is that images can be reviewed instantly. The Playback mode lets users review recently taken pictures, video clips and audio files. This camera has a 2.5" LCD that lets users clearly view their pictures. Press to access the menu, and then use the ▲▼button to select the setting options. Once an option has been selected, use the ►◄ button to scroll through its settings and confirm the setting to be changed (some settings will require pressing Shutter button to be activated). The following is a detailed introduction of the Playback Mode menu.

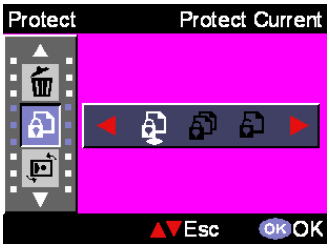
Delete

Users can delete current or all files under this setting option:
Current
All



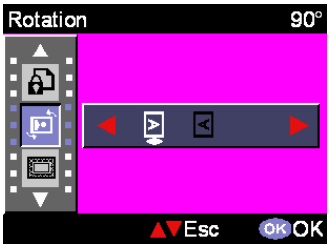
Protect

Users can prevent images from accidental erasure. This setting option has settings as:
Protect Current
Protect All
Unprotect Current
Unprotect All



Rotation

This setting option can rotate image 90 degree clockwise and anti-clockwise. After user selected the rotation direction setting will need to press shutter for execution.

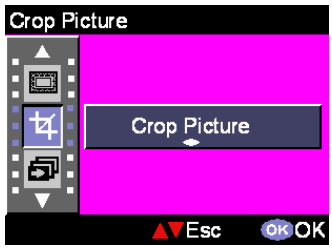


Frame Editing

This camera provides 6 different frames for quick image editing on LCD.

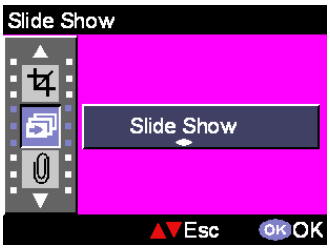
Crop Picture

Users can crop images through the desired magnified area. Pressing Shutter button to confirm crop function. After pressed Zoom In/Out button, the image was magnified or minified, then users could use 4-way button to navigate the image. Once a desired section of the picture had been selected, pressed Shutter button again to crop images.



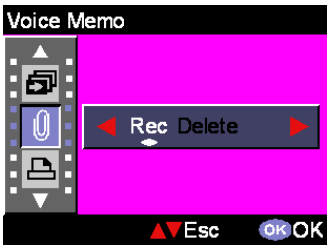
Slide Show

This setting option allows users to review all images by slide show way. Users also can set slide show interval in Setup Mode.



Voice Memo

This setting option provides 20 seconds voice memo recording for still image. Selecting “Voice Memo” then pressing Shutter button to start recording. A countdown timer will indicate how much time is left in the recording session. Pressing Shutter button again can end recording.



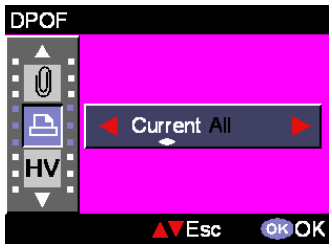
DPOF

DPOF is a format used to record automatic printing information from cameras. By specifying which pictures are to be printed, the pictures can be printed easily by DPOF-compatible printing service labs or on a personal DPOF-compatible printer. Users can select current or all or all images to print:

Current

All

Reset

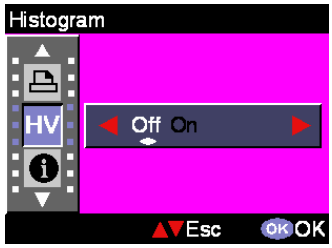


HV Histogram

This setting option allows users to review the histogram value condition of taken picture. Once Histogram is enabled, users can see the HV display on LCD.

On

Off

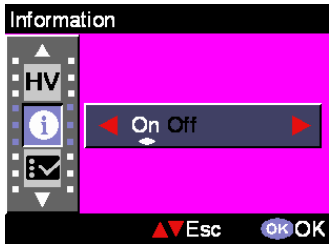


Information

This setting option supports the display of recording information on the LCD while reviewing pictures.

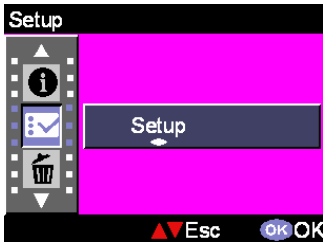
On

Off

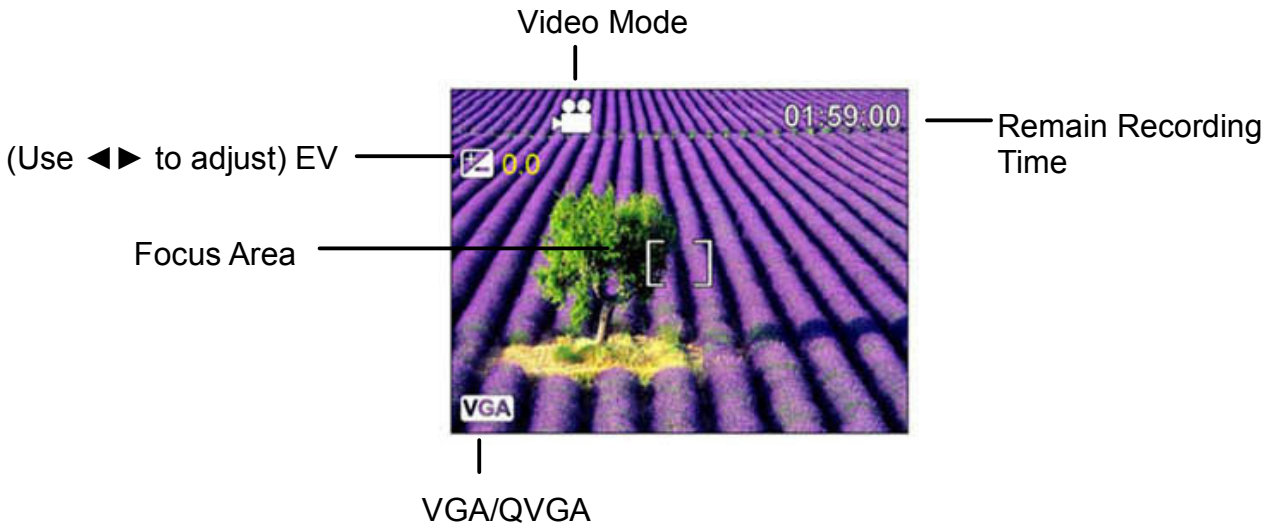


Setup

This option supports the display and use of the setup menu; for detailed information, see page 23.



Audio/Video Video Mode

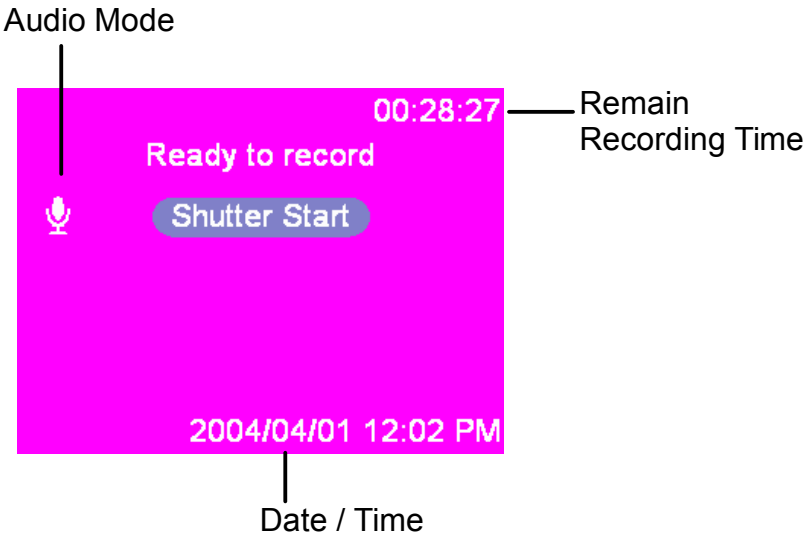


1. Video Mode allows users to use the camera as a movie recorder. The recorded movie length is based on the capacity of the internal memory or SD/MMC card.
2. Turning the Mode Dial to the Movie Mode.
3. To start recording a movie, press the Shutter button. The camera will check the capacity of the memory prior to recording a movie. If the memory is full, a warning message “memory full” will display on the LCD, and the camera will automatically exit the movie recording mode.
4. If there is no warning message, the camera will start recording. To stop recording, press the Shutter button again.
5. During movie recording, the Status LED is flashing in red.
6. Users can select movie recording size by pressing to select Resolution options, there are VGA and QVGA resolutions for movie recording.

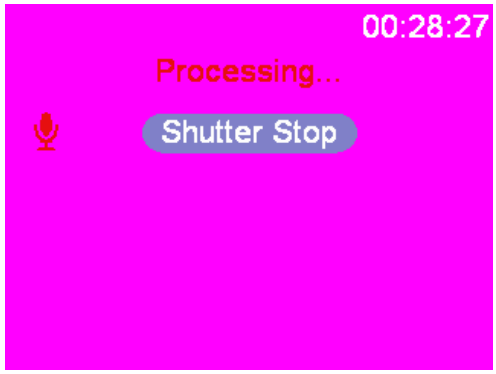
Tip:

1. The file format of movie is MPEG 4. (.avi)
2. When users playback video clip in PC, system will require MPEG4 Codec. Please link to Microsoft Website for getting the latest Codec or update the third party latest Codec which users had installed.
3. During movie recording, the zoom function is blocked.

Audio/Video Audio Mode



This mode allows users to record audio. Pressing the Shutter button to start recording, and press the Shutter button again to stop recording. During audio recording, the Status LED is flashing in red.

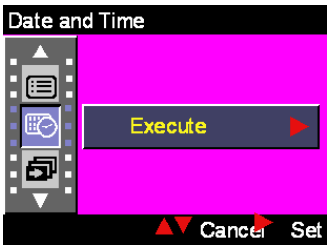


Setup Function

Enter the Menu Setup function. Pressing ▲▼ button to select the setting options. Once the option is selected, use ◄► button to scroll through settings and confirm to setting changed (some settings will need to press Shutter button to execute setting activating). Following are the detail instructions of Setup menu.

Date and Time

Resetting date and time after battery changed. Users can press Shutter button to start changing settings value, by using ▲▼button and change setting items by using ◄► button.

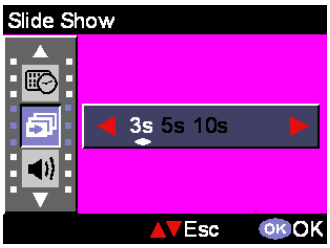


After Date and Time settings changed, users have to press Shutter button again for change confirmation.

Tip: Dates can be set in these formats:
YYYY. MM. DD
MM. DD. YYYY
Time can be set in these formats:
12-hour
24-hour

Slide Show

Under this setting, users can set the interval of seconds which they want the slide show to proceed per slide. Users can select:
3S
5S
10S



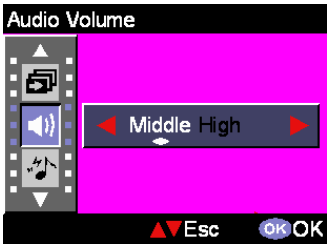
Audio Volume

Users can adjust the camera audio volume to:

High

Middle

Low

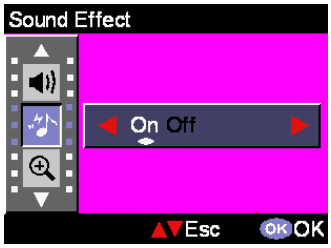


Sound Effect

This setting option allows users to turn the sound effect on or off:

On

Off

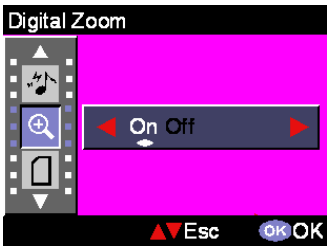


Digital Zoom

This camera provides the digital zoom function up to 8x magnification while taking picture. Users can set to enable digital zoom function from this setting option.

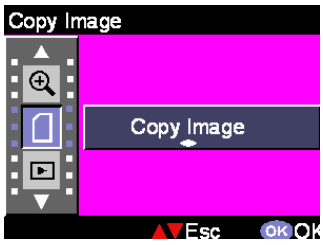
On

Off



Copy Image

This camera can support to copy pictures from internal memory to SD card. The function is blocked when no SD card in camera.



Instant Review

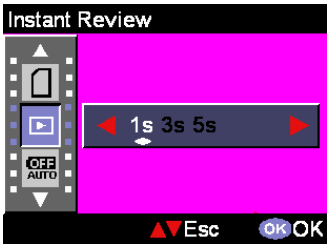
This setting option sets the time for the picture previewed instantly after shoot:

1S

3S

5S

Off



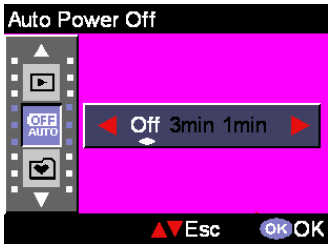
Auto Power Off

This setting option can let camera automatically turns off after no operation for a while. Users can select the following minutes to Auto Power Off the camera.

Off

3 min

1 min



Background Editing

This setting option allows users to select their preferred images which are built in camera (Image1, 2) or " My Photo" as background.

Image 1

Image 2

My Photo

Tip: This background will be replaced the default images of welcome page and Setup Mode background. Users could use "My Photo" function to choose preferred images from Internal Memory or SD card to be background image, and it will be stored in camera, even though the image stored in Internal Memory or SD card had been deleted by users, "My Photo still keeps the image.

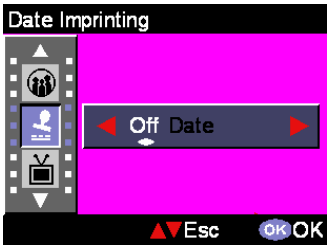
Language

Users can select proper language from the following:
English
German
French
Spanish
Italian
Nederland
Danish
Czech
Russian
Poland
Traditional Chinese
Simplified Chinese
Japanese
Korean

Date Imprinting

This setting option is used for stamping the date on the picture. Users can select following settings:

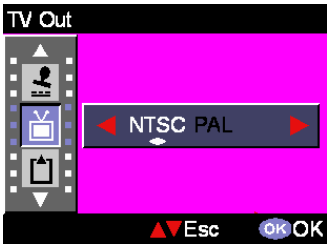
Date
Off



TV Out

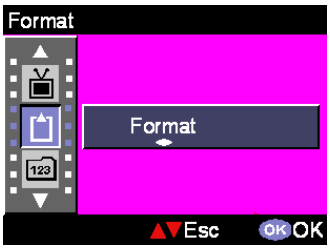
Depending on where the user is, the different region requires different TV system for " TV Out" transmission.

NTSC
PAL



Format

This setting option allows users to format the camera internal or
Shutter button to execute or ▲ ▼ button to escape.

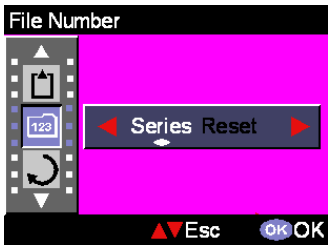


File Number

The image count will be restored to zero once the pictures in memory had been erased under File Number “Reset” condition. Setting the order of pictures stored in the camera:

Reset - File number counting from zero.

Series - File number counting from series.

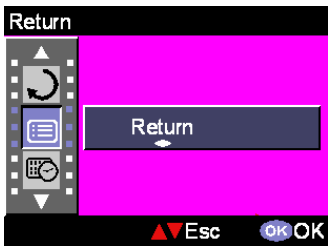


Restoring

This setting option can restore the camera to factory setting.

Return

This setting option can go back the previous menu selection.



Making Connections

In this section you will be able to connect the camera to your PC to download or edit photos.

Installing Software

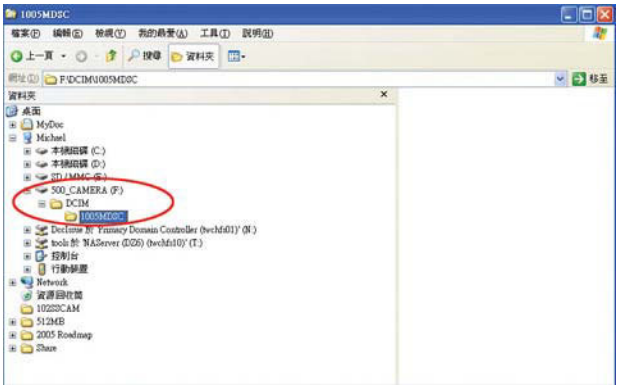
1. Insert the CD-ROM into your CD-ROM drive.
2. If using Windows 98, click "Digital Camera Driver". Choose any from the five available options and click 'Install'.
3. The installation wizard will guide you through the installation.
4. You will be able to use the application once it's installed.

Caution:

1. Driver is for uploading pictures to computer, if the operation system is Win 98
2. If the user didn't install the driver before plugging in the USB device, system will detect new device while the camera connected to computer. Please insert the CD-ROM and complete the drive installation.

Connecting through USB

This section will guide users how to download images from camera to PC through the USB cable.



1. This camera allows users to move the images or movie from camera to PC by MSDC support.
2. When the camera is connected to your PC, there will be one external storage device in “My computer” named “600_CAMERA”.
3. Simply clicking the folder named "DCIM\1006MDSC", users can find the recorded files.
4. Copying or remove these files to from camera to your PC, then users can start to edit the images.

Connecting through TV-out

Before connecting the camera to TV, please set the proper TV-out protocol in the camera. After TV-out set to proper connection protocol, users can enable each function through the TV monitor instead of the LCD display.

1. Connecting the video cable into the video out connector.
2. Connecting the other end of the video cable into the TV’s video-in jack.
3. Turning the camera ON, users should then be able to operate the camera with TV screen. (The LCD will turn off while the camera connected to TV-out)

Appendix

Camera Default Setting

Setting Matrix	Default Setting
Resolution	6M (2816x2112)
Image quality	Best
Self-timer	Off
Capture	Auto
White Balance	Auto
Digital Filter	Normal
ISO	Auto
Metering	Matrix
Histogram	Off
Information	On
Scene	Auto
Date and Time	2005.01.01
Slide Show Interval	3s
Audio Volume	Middle
Sound Effect	On
Digital Zoom	On
Instant Review	1s
Auto Power Off	1min
Background Editing	Image 1
Languages	English
File Number	Series

LED Status

LED Status	Status LED	AF Assist / Self-timer LED	Description
Power Off	Off	Off	Camera off.
Power On	GREEN	Off	Camera on status.
Flash charging	Flickering RED	Off	When the flash is charging, “Red” LED will flicker (2 flickers / s), then turn to “Green” when the flash had charged completely.
Image saving	Flickering GREEN	Off	“Green” LED will flicker during image saving.
Battery low	Flickering Orange	Off	Camera is going to run out of battery power.
Self-timer	GREEN	Flickering RED	Self-Timer LED will flicker together with beep according to countdown tempo in first 7 sec. then 2 flickers / per sec. at last 3 sec.; If Self-Timer is set to 3 sec., flicker will keep 1 flicker / per sec. till last.
AF Assist	GREEN	RED	When subject illumination is too deem for taking shot.
Out of focus	ORANGE	Off	While focus failed, “Orange” LED will be on, it will change to “Green” when users release Shutter button.
Audio / Video recording	Slow flickering RED	Flickering / Off	When recording movie / audio, the “Red” LED will flicker slowly (1 flicker / per secretary.) according to “REC” logo.

Information Code Specifications

Error	Possible Cause	Corrective Action
Card Full	No more pictures can be stored	Remove the pictures or insert another card
Write-Protect	Card has been protected	To remove write-protect latch of card
Card Error	Cannot record, playback or erase pictures on this card	To format this card or replace another card
Picture Error	This recorded picture with camera	To view the image through PC. If it cannot be done, the picture is damaged.
SD Card / internal memory No picture in	There no image in storage, so there nothing in playback	To take pictures or insert another card with images
Card Setup	This card is not formatted	To format this card before using
Battery Empty	Battery low for taking pictures	Installing new or charged battery
No Card	No card for ”copy image” from internal Memory.	To insert a SD/MMC card into camera.

Specification

Features	Content
Sensor Photosensor	6.36 MegaPixels
Sensor Size	1/2.5”
Sensor Type	CCD
Maximum Image Resolution	3648 x 2736 (Interpolated)
Still Image Size	3648 x 2736 / 2816 x 2112 / 2048 x 1536 / 1600 x 1200 / 1280 x 960 / 640 x 480
Video Clip	VGA @ 30 fps
Build-in Microphone	Yes
Build-in Speaker	Yes
Build-in Memory	32 MB NAND Flash Memory
Storage Types	Secure Digital (SD) Card or MultiMedia Card (MMC)
Optical Zoom	4.8x
Digital Zoom	8x
Focus Length	F=4.6~22.2 mm
Aperture Range	F=3.3~4.8
Shutter Speed	16~1/2000 sec
Focus Mode	TTL Contrast Detection
Normal Focus Range	30 cm ~ ∞
Macro Focus Range	1 cm ~ 30 cm
Voice Memo	20 seconds voice memo
Audio Record	WAV
Sound Effect	Yes
Flash Manual Setting	Off / Auto / Force On / Auto Red Eye Reduction / Slow sync.
Flash Range	1.0 ~ 2.4 M
Self-timer	3/10 seconds delay
Continuous Shot	Yes
Compressed File Format	JPEG EXIF 2.2 (DPOF support)
Video Clip Format	MPEG4
LCD Display	2.5” LTPS TFT LCD

Multiple Language	E/G/F/S/IT/NE/DA/CZ/RU/PO/TC/SC/J/K
Playback Zoom	Up to 8x
Video Out	TV out with video & audio
PC Interface	USB 2.0 High Speed
Power Source	NP-40 Li-Ion Battery
Body Material	Metal
Tripod Mount	Yes
Dimensions	97 x 55 x 24.8 mm
Weight (Battery Excluded)	140g
Supported O/S	Microsoft Windows 98SE, ME, 2000, XP, Mac OS 9.1
Bundled software	Ulead Photo Explore 8.0 SE Ulead Video Studio 7.0 SE Ulead Cool 360 Adobe Acrobat Reader 5.0